

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Socioeconomic inequalities in the rate of stillbirths by cause: a population based study
AUTHORS	Sarah E Seaton, David J Field, Elizabeth S Draper, Bradley N Manktelow, Gordon CS Smith, Anna Springett and Lucy K Smith

VERSION 1 - REVIEW

REVIEWER	Elizabeth McClure, perinatal epidemiologist, Research Triangle Institute, US
REVIEW RETURNED	28/03/2012

THE STUDY	The authors did not indicate a sample size to test their hypotheses. It also would have been helpful if they had provided the rationale for using the Aberdeen classification system (as opposed to other classifications which they noted may have less stillbirths classified as 'unknown'). It would also be helpful to describe why 10 income divisions were used rather than quintiles, a more common division. The authors provide SB / 10,000 in Table 4, but elsewhere use SB rate/1000, the more common rate - it would be helpful to be internally consistent.
REPORTING & ETHICS	The authors did not indicate whether this study was approved by an ethics review committee or whether informed consent was obtained from women.
GENERAL COMMENTS	In the background, it would be helpful to clarify that the UK rates are high relative to other high-income countries. The authors allude to low-income country rates, but the majority of the discussion related to HIC. Also, it may be helpful to discuss the rationale for using the Aberdeen classification system for this study, given the high rate of unclassified SB (and the discussion in the conclusion that other systems have fewer unclassified SB).

REVIEWER	Jim Neilson Professor of Obstetrics & Gynaecology University of Liverpool, UK. No known competing interests re this work.
REVIEW RETURNED	02/04/2012

The reviewer completed the checklist but made no further comments.

VERSION 1 – AUTHOR RESPONSE

Response to the managing editor:

I note that the Acknowledgements includes some information that might be better in the funding

statement (particularly the grant number); unless the NIHR specifies the Acknowledgements section for this detail.

- We have amended this information in line with the requests from yourself and the NIHR.

Response to Reviewer 1:

Reviewer: Elizabeth McClure, perinatal epidemiologist, Research Triangle Institute, US.

The authors did not indicate a sample size to test their hypotheses.

- The time period (2000-2007) was chosen as these were the most recent data available. An a priori sample size calculation was not undertaken as the data had already been collected by the Centre for Maternal and Child Enquiries (CMACE) and were available for analysis. In these circumstances, a power calculation would have served no purpose as the confidence intervals reported in the paper quantify the statistical power of our analysis. If the reviewer was referring to a post hoc power calculation, we do not believe that this would offer any further insight into the interpretation of our results (see, for example, Hoenig & Heisey. *The American Statistician* 2001;55:1-6).

It also would have been helpful if they had provided the rationale for using the Aberdeen classification system (as opposed to other classifications which they noted may have less stillbirths classified as 'unknown').

- We have used the Aberdeen classification as only this and the Wigglesworth classification were available in this national dataset. The Aberdeen classification is more appropriate for stillbirths as it offers more classifications relating to stillbirth. We have addressed this in the limitations section and hope this clarifies this point.

It would also be helpful to describe why 10 income divisions were used rather than quintiles, a more common division.

- A variety of divisions are used when exploring deprivation, for example: quartiles, tertiles, quintiles, deciles. Since we had a large number of births we decided to use deciles to better investigate the range of experiences between the most and least deprived. We have clarified this in the Methods section of our paper.

The authors provide SB / 10,000 in Table 4, but elsewhere use SB rate/1000, the more common rate - it would be helpful to be internally consistent.

- We have amended the text to remove this inconsistency. We have presented rates per 10000 births due to the small numbers seen when comparing different causes of stillbirth. We have also added a sentence to the Methods section clarifying this.

The authors did not indicate whether this study was approved by an ethics review committee or whether informed consent was obtained from women.

- This study is based on routinely available national data that are anonymised and hence there is no requirement for ethical approval. We have clarified this in the Methods section of our paper.

In the background, it would be helpful to clarify that the UK rates are high relative to other high-income countries. The authors allude to low-income country rates, but the majority of the discussion

related to HIC.

- We have added details regarding a recent study that identified the UK as having the highest stillbirth rate amongst 14 developed countries in recent years (Flenady et al 2011).

Also, it may be helpful to discuss the rationale for using the Aberdeen classification system for this study, given the high rate of unclassified SB (and the discussion in the conclusion that other systems have fewer unclassified SB).

- In the section on limitations we have explained that alternative classifications were unavailable for this work as they were not used for routine data in England for the time period under investigation. We hope this clarifies this issue.

- We would like to thank Dr. Elizabeth McClure for her helpful comments and taking the time to review this manuscript.

Response to Reviewer 2:

Reviewer: Jim Neilson
Professor of Obstetrics & Gynaecology
University of Liverpool, UK.

No known competing interests re this work.

(There are no comments.)

- We would like to thank Professor Jim Neilson for taking the time to review this manuscript.

VERSION 2 – REVIEW

REVIEWER	Elizabeth McClure, Perinatal Epidemiologist Research Triangle Institute, USA
REVIEW RETURNED	22/04/2012

REPORTING & ETHICS	The authors noted "As this study is based on routinely collected data which were anonymised, there was no requirement for ethical approval." This may be adequate but is slightly different from a study being reviewed and then determined to be exempt. I would defer to the editors.
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